

tanks 265. The upper rear portion of the handle 65b provides the stability for the two propane tanks by method of a secure strap 270 and a cross bar extending left and right 275. Exchange of the two propane tanks is accomplished by releasing the pins 280 located on either side of the handle 65a, 65b and removing the rear portion of the handle 65b and cross bar enabling free unobstructed access. Rotational braking mechanism 285 is a steel pad pin mounted designed to apply compression against the pneumatic wheels. The rear braking lever 300 has a center axis bolt 295 with spring retention allowing the braking lever 300 side to side and forward, reverse movement. The desired lock, unlock settings for braking are achieved with the tangentially side mounted plate 305 with extruded tabs. Rotational movement is transferred from the rear braking lever to the front steel pad with 290 the push, pull connecting rod.

A variety of modifications, changes and variations to the invention are possible within the spirit and scope of the following claims and will undoubtedly occur to those skilled in art. The invention should not be considered as restricted to the specific embodiment that has described and illustrated with reference to the drawings.

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### What is claimed:

1. Multi axial asphalt heating system with **up and down, adjustments** that permit precise heating adjustments for various conditions. The multi – axial comprising :
  - (a) Extending upwardly from the main frame base is an upper portion pinned mounted atop the lower portion of the main frame and is rotatably mounted on the upper portion for rotation about a pin axis.
  - (b) The upper portion of the main frame base is constrained to rotate relative to the lower portion of the main frame base.
  - (c) Adjustment to the desired position of rotation may be achieved by the adjustment mechanism or lever arm mounted to the lower portion extending upwards about the axis center bolt.
  - (d) A bolt connected to lifting arms aligned on a common axis extends forward to the upper portion tangentially in relation to the axis center bolt.
  - (e) With the adjustment mechanism or lever arm connected on a common axis with forward and reverse motion urge rotational lift or decent of the upper portion in relation to the lower portion.
  - (f) When the desired position of adjustment has been achieved it may be secured with a spring pin method along a tangentially side adjustment plate mounted to the lower portion the main frame base or may be secured and locked using a spring loaded locking mechanism attached to the handle extending upward from the main frame base.
  - (g) The adjustment mechanism or lever arms embodiments the use of a heavy spring, a resistance mechanism from lower portions of the main frame base to upper portion.

2. Multi axial asphalt heating system with **forward and reverse adjustment** that permits precise heating adjustments for various conditions. The Multi-axial comprising :
  - (a) Extending forward from the upper portion of the main body is the track rail mechanism a left and right side with radially shaped cannel base designed for carrying and supporting radially shaped rollers for rotation extending the full length of the track rail.
  - (b) From the track rail mechanism upwards are the truss mechanism for confining and centering the track rail and supporting the belt guard with limit switches attached on either ends.
  - (c) The rotation cycle and travel distance forward and reverse is controlled and is adjustable by the limit switches mounted on either end of the belt guard and opposing ends of the track rail
  - (d) The rotation cycles of the heating elements forwards and reverse is powered electrically with an electric motor and gear reduction mechanism mounted atop the upper portion of the main frame base and is confined with in the thin metal exterior sheeting of the main body.
  - (e) Extending forward from the gear mechanism and the cog sprocket is a cog belt drive system connected on either ends of the center heater frame with an idler pulley located at the far end of the track rail.
3. Multi axial Asphalt heating system with **fold up feature adjustment** that permits practical Transportability for various applications. The Multi-axis comprising:

#### **Track Rail**

- (a) Radially shaped hinge mechanism mounted left and right on a given point of the track rail mechanism enables the track rail to lock in a level position using a spring pin method or rotate upwards vertically and backwards resting on a adjustable cross beam mechanism attached to a truss.
- (b) Mounted to the one inside of the radially shaped hinge mechanism is a spring loaded safety, locking arm mechanism which drops downward and over the track rail opening during rotation upwards of the track rail insuring the center heater frame and heater banks stay lodged into position.

#### **Heater Frames**

- (c) The heater frames consist of a rectangular shaped center frame, a rectangular shaped frame to the right and from the center frame a rectangular shaped frame to the left connected to each other by radially shaped hinge mechanism s which embodiment the use of a spring resistance mechanism anchored from radially shaped hinge arms attached to the center heater frame extending outwardly to anchor brackets located on the left and right heater frames.
- (d) The radially shaped hinges offer rotation of the right and left not the center frame upwards with periodically degree adjustments setting by method of spring pins to the vertical position.
- (e) The one half of radially shaped hinge that is attached to the center frame has a slotted flat metal mechanism to attach and adjust the wind guard devises.